

C H A P T E R - V

Antibacterial activity

As previously stated*, leaves of Glinus lotoides and Dodonaea viscosa as well as entire plants of G. oppositifolius, Mollugo nudicaulis and M. cerviana are ~~are~~ antiseptic (Kirtikar and Basu, 1933; Thakar, 1952 and Nadkarni, 1954).

The readings are recorded in Table No. 21. Controls with 70% (v/v) alcohol gave no zones of inhibition showing that alcohol in this concentration has no antibacterial value. Zones of inhibition are due to active principles in the extracts only.

The values in Table No. 21 are mean of three readings.

S U M M A R Y

It can be seen that both the aqueous and alcoholic extract of Glinus lotoides show antibacterial values against Micrococcus pyogenes var. aureus, Bacillus mycoides and B. subtilis; the two extracts of G. oppositifolius show antibacterial values against B. subtilis and Escherichia coli, respectively.

* See page Nos. 24, 87, 35, 42 and 50.

Antibacterial activity

Aqueous and alcoholic extracts of Mollugo nudicaulis and the aqueous extract of both M.cerviana and Dodonaea viscosa do not show any antibacterial values.

Alcoholic extract of D.viscosa only, shows appreciable antibacterial values. These values are not only high for Gram-positive organisms but for three of the gram-negatives organisms also.

TABLE - 21

Name of organisms	Gram. + ve or Gram. - ve	<u>Glinus lotoides</u>	<u>G. oppositifolius</u>	<u>Mullugo nudicaulis</u>	<u>Mullugo cerviana</u>	<u>Dodonaea viscosa</u>
	Aqueous - ve	Alcohol- lic	Aqueous - ous	Alcohol- lic	Aqueous - ous	Alcohol- lic
1. <u>Micrococcus pyogenes</u> var. albus	+	-	-	-	-	-
2. <u>Micrococcus pyogenes</u> var. aureus	+	15	15	-	-	-
3. <u>Micrococcus pyogenes</u> var. citreus	+	-	-	-	-	18
4. <u>Bacillus megatherium</u>	+	-	-	-	-	18
5. <u>Bacillus mycoïdes</u>	+	19	19	-	-	-
6. <u>Bacillus subtilis</u>	+	14	13	25	-	-
7. <u>Sarcina lutea</u>	+	-	-	-	-	19
8. <u>Escherichia coli</u>	-	-	-	-	-	20
9. <u>Salmonella typhi</u>	-	-	-	-	-	24
10. <u>Salmonella paratyphi A</u>	-	-	-	-	-	20
11. <u>Salmonella paratyphi B</u>	-	-	-	-	-	-
12. <u>Salmonella paratyphi C</u>	-	-	-	-	-	-
13. <u>Proteus vulgaris</u>	-	-	-	-	-	-
14. <u>Pseudomonas aeruginosa</u>	-	-	-	-	-	-